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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,074

03/13/2007

Gerhard Schwenk

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ALEXANDRIA, VA 22314-1176

EXAMINER

GRABOWSKI, KYLE ROBERT

ART UNIT

PAPER NUMBER

3725

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/575,074	SCHWENK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kyle Grabowski	3725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14-17, 19 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-17, 19 and 32-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                     |                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. This is a non-final action in response to the claims and RCE filed on 02/14/11

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8-12, 14-15, 17, 19, and 32, rejected under 35 U.S.C. 102(b) as being anticipated by Bratchley et al. (US 6,155,605).
4. In respect to claims 1-4, Bratchley et al. disclose a value document comprising: a value document substrate having two entities: at least one high security entity (HSE) and at least one low security entity (LSE), the HSE comprising a homogeneous (uniform) mixture of at least two components (Col. 3, 23-34); the LSE may be construed to be the “second feature substance” and the two components comprising the HSE may be construed to be the “first feature substance” and “third feature substance”; one entity (e.g. the HSE comprising the first and third feature substances) may be incorporated into the volume of the substrate (Col. 4, 57-61); the LSE comprising the second feature substance may be printed on the value document with a luminescent print (Col. 8, 35-65); Bratchley et al. further discloses providing a series of said value documents,

wherein a identifying material \*in\* the document (e.g. the said HSE within the volume, comprising a first feature substance and third feature substance) may have a “different physical property” which identifies the value of the document. The term “upgrade” is structurally synonymous with “different physical property” pertaining to the properties of the HSE compounds to denote the value of the document (Col. 11, 1-25)

5. In respect to claims 5 and 6, Bratchley et al. further disclose that the HSE and LSE (comprising the first, second, and third feature substances) may contain an array of materials including ones that exhibit luminescence et al. (Col. 5, 66 – Col. 6, 7).

6. In respect to claims 8, 14-15, and 32, Bratchley et al. further disclose a bar code may comprise an additional element of the invention (e.g. LSE) construed to be the “fourth feature substance”; the fourth feature substance forming the bar code may comprise a plurality of substances including magnetic effects or IR/UV effects (Col. 5, 28-34); fluorescent effects may be may be invisible (Col. 4, 36-42); it is inherently disclosed that barcodes represent information of the article they are applied.

7. In respect to claim 9-12, Bratchley et al. disclose a medley of LSE (second feature substances) appropriate materials, including an antistokes coating which is excitable (absorbent) in the IR range (Col. 8, 52-58) (known to have an inherently weak color in visible light when not excited by IR). A plurality of “other” security elements may be construed to be the “second feature substance” aligned in the other claims, and thus the “fourth feature substance” can also represent the LSE, including the antistokes coating (Col. 5, 8-11).

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8. In respect to claims 17, Bratchley et al. further disclose the substrate may be a plastic material/film (which is coated or printed as disclosed above) (Col. 5, 7-8).

9. In respect to claim 19, Bratchley et al. disclose these methods of paper marking, (Col. 5, 53-59) however, although a product-by-process claim is limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bratchley et al. (US 6,155,605) in view of Kaule (EP-B-0 052 624). Bratchley et al. substantially disclose the claimed subject matter for the reasons stated above including the inclusion of rare earth phosphors (Col. 12, Table 2) but do not disclose providing a host lattice doped with earth metals as the feature substance(s), however, as disclosed by the applicant, Kaule discloses embodiments of host lattice and dopant combinations (0018) and as such providing rare earth phosphors in this manner is known. All of the claimed elements were known in prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. It is known that rare earth phosphors may be manufactured within a host lattice (Kaule); it is known to provide rare earth phosphors in banknotes for security (Bratchley et al.). There is no unexpected result with providing the value document with the rare earth phosphor on the basis of a host lattice.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bratchley et al. (US 6,155,605). Bratchley et al. disclose that the substrate may be a paper material (which is coated or printed as disclosed above) (Col. 5, 7-8) but does not disclose that the paper comprise cotton fibers, however it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the fibers for the paper taught in Bratchley et al. as cotton fiber since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its

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suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Cotton fibers are a well known material in the paper making art.

14. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bratchley et al. (US 6,155,605) in view of *Anti-Stokes Phosphors/Luminophors* (ASPL). Bratchley et al. as substantially disclose the claimed subject matter for the reasons stated above including the usage of antistokes material but do not disclose particulars of their excitation (absorption) wavelengths. ASPL discloses an Anti-Stokes phosphor FAM-810/1000-1 having a basic excitation wavelength of 1.5-1.6  $\mu\text{m}$ . It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Anti-Stokes phosphor FAM-810/1000-1 as a suitable material for the Anti-Stokes coating taught in Bratchley since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

15. Claim 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Bratchley et al. (US 6,155,605) in view of Soules et al. (US 5,169,155). Bratchley et al. does not explicitly disclose the LSE comprising a luminescent print extends over a substantially total surface area of the value document however Soules et al. teach a similar LSE bar code coating (Col. 11, 9-13) which may be applied in alternating fashion over a substantially total surface area of a high security playing card (Fig. 3) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to

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provide the LSE coating taught in Bratchley et al. over a substantially total surface area of the value document in view of Soules et al. to ensure for accurate reading as long as some portion of the card (or value document) passes over verification means (Col. 6, 67-Col. 7, 6).

### ***Response to Arguments***

16. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Claims 1-6, 8-12, 14-15, 17, 19, and 32, are rejected solely over Bratchley. The examiner respectfully disagrees that the amended subject matter is patentably distinct from Bratchley for the reasons stated above.

17. Bratchley further discloses that the features in or on the document (HSE and LSE security features) may have different physical properties to help differentiate different values of the documents (Col. 11, 1-25). This constitutes an "upgrade" e.g. providing a different physical property to a higher denomination for secure value determination.

### ***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Grabowski whose telephone number is (571)270-3518. The examiner can normally be reached on Monday-Thursday, 9am - 7pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shelley Self can be reached on (571)272-4524. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kyle Grabowski/  
Examiner, Art Unit 3725

/Shelley Self/  
Primary Examiner, Art Unit 3725